

Title (en)

Process controller with modular I/O units.

Title (de)

Prozesssteuervorrichtung mit bausteinartigen Ein-/Ausgabeeinheiten.

Title (fr)

Dispositif de commande avec des unités d'entrées/sorties modulaires.

Publication

EP 0490864 A1 19920617 (EN)

Application

EP 91870201 A 19911209

Priority

US 62293690 A 19901211

Abstract (en)

A controller of the type used in process control includes a plurality of modular I/O units. The I/O units includes I/O circuits which may be of four basic types: digital input circuits, digital output circuit, analog input circuits and analog output circuits. Each of the I/O circuits has a code generator that generates a binary code indicating the type of I/O circuit. The controller is microprocessor-controlled and periodically communicates with the I/O circuits and determines the type of each I/O unit based upon the binary code. The I/O units may be temperature-compensated based upon the temperature within the housing of the controller, and other integrity checks may be performed on the I/O units. The controller also has a change module routine which allows the I/O units to be installed or removed during operation of the controller. <IMAGE>

IPC 1-7

G05B 19/04

IPC 8 full level

G05B 15/02 (2006.01); **G05B 19/042** (2006.01)

CPC (source: EP US)

G05B 19/0423 (2013.01 - EP US); **G05B 2219/25096** (2013.01 - EP US); **G05B 2219/25296** (2013.01 - EP US);
G05B 2219/25301 (2013.01 - EP US)

Citation (search report)

- [X] EP 0352683 A2 19900131 - ALLEN BRADLEY CO [US]
- [Y] US 4819149 A 19890404 - SANIK PAUL S [US], et al
- [Y] EP 0196032 A2 19861001 - ERHARDT & LEIMER GMBH [DE]
- [A] WO 8906389 A1 19890713 - FANUC LTD [JP]

Cited by

JP2014209380A; JP2014222526A; DE4312305C5; EP0698837A1; EP0911613A1; DE4106193A1; EP1059513A3; US5963147A; US5650777A; US6073191A; US7228186B2; US6307483B1; US6212580B1; US9411769B2; US6751512B1; US7991582B2; US7672740B1; US7711440B1; US9495313B2; US7742833B1; US9124446B2; EP0603560B1

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

US 5901323 A 19990504; AU 658842 B2 19950504; AU 8894391 A 19920618; CA 2057344 A1 19920612; DE 69121373 D1 19960919; DE 69121373 T2 19970327; EP 0490864 A1 19920617; EP 0490864 B1 19960814; JP H04268604 A 19920924; NO 302258 B1 19980209; NO 914850 D0 19911210; NO 914850 L 19920612

DOCDB simple family (application)

US 17633094 A 19940103; AU 8894391 A 19911210; CA 2057344 A 19911210; DE 69121373 T 19911209; EP 91870201 A 19911209; JP 32590591 A 19911210; NO 914850 A 19911210